

Appl. No. 10/801,433
Amdt. Dated Nov. 23, 2005
Reply to Office Action of Aug. 23, 2005

REMARKS

By the above amendments, applicant has amended claims 1, 9 and 10.
No new matter has been entered.

Claim Objections

Claims 1 and 9 are objected to because of the stated minor informalities.
Applicant has appropriately amended claims 1 and 9 in order to overcome the objections.

Claim Rejection Under 35 U.S.C. 112

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particular point out and distinctly claim the subject matter which applicant regards as the invention.

In response, applicant has amended claim 10 to further define "unit" to be portions which the black matrix is divided into by the RGB resins. No new matter has been added.

Claim Rejections Under 35 U.S.C. 103

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,285,424 B1 (to Yoshida)(as provided by Applicant) in view of United States Patent 6,740,457 B2 (to Takizawa).

In response to this rejection, applicant has amended independent claims 1, 9 and 10 to patentably distinguish them from the cited reference and to better express the claimed subject matter. Applicant respectfully submits

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that claim 1 is now patentable for the following reasons:

Amended claim 1 recites in part "[a] color filter...the antireflection layer comprising a first antireflection film having a first index of refraction, and a second antireflection film formed on the first antireflection film and having a different second index of refraction, the first index of refraction being less than the second index of refraction...the color resin layer covering the black matrix entirely."

The subject matter of amended claim 1 highlighted above is contained in paragraph [0019] of the specification as originally filed. No new matter has been entered. Applicant acknowledges that Yoshida discloses a color filter comprising a transparent substrate (2), a black matrix having an antireflection layer (3 and 4) and a light shielding layer (5) successively formed on the transparent substrate, and a color resin layer (R, G, B), the antireflection layer comprising a first and a second antireflection films which are made from different materials. However, it is possible for two different materials to have exactly the same index of refraction. As indicated by Examiner, Takizawa merely teaches that the color resin layer covers the black matrix entirely. Yoshida in view of Takizawa fails to teach or suggest the limitations of "a second antireflection film formed on the first antireflection film and having a different second index of refraction, the first index of refraction being less than the second index of refraction," as recited in amended claim 1, because the limitations mean that the index of refraction of the antireflection film closer to the transparent substrate is less than that of the antireflection film closer to the light-shielding layer. Thus, the combination of the references does not teach or suggest a color filter comprising all the limitations recited in amended claim 1.

In summary, there is nothing in the cited references that teaches or

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suggests to one of ordinary skill in the art that he or she might or should provide the color filter of amended claim 1. Furthermore, the color filter of amended claim 1 produces new and unexpected results. That is, optical reflectivity on both surfaces of the color filter of amended claim 1 is much decreased. Accordingly, amended claim 1 is submitted to be unobvious and patentable over Yoshida in view of Takizawa under 35 U.S.C. 103(a). Reconsideration and withdrawal of the rejection of amended claim 1 are respectfully requested.

Claims 2-8 depend directly or indirectly from amended claim 1. Therefore reconsideration and withdrawal of the rejections of claims 2-8 are respectfully requested.

Applicant respectfully submits that claim 9 is now patentable for the following reasons:

Amended claim 9 recites in part "[a] liquid crystal display device...the antireflection layer comprising a first antireflection film having a first index of refraction, and a second antireflection film formed on the first antireflection film and having a second index of refraction, the first index of refraction being less than the second index of refraction...the color resin layer covers the black matrix entirely..."

The subject matter of amended claim 9 highlighted above is contained in paragraph [0019] of the specification as originally filed. No new matter has been entered. Applicant acknowledges that Yoshida discloses a liquid crystal display device comprising a TFT substrate (20) jointed onto a transparent electrode (7) of a color filter substrate (1), a transparent substrate (2), a black matrix (BM) having an antireflection layer (3 and 4) and a light shielding layer (5) successively formed on the transparent substrate, and a

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color resin layer (R, G, B), the antireflection layer comprising a first and a second antireflection films which are made from different materials. However, it is possible for two different materials to have exactly the same index of refraction. As indicated by Examiner, Takizawa merely teaches that the color resin layer covers the black matrix entirely. Yoshida in view of Takizawa fails to teach or suggest the limitations of "a second antireflection film formed on the first antireflection film...[and]...the first index of refraction being less than the second index of refraction," as recited in amended claim 9, because the limitations mean that the index of refraction of the antireflection film closer to the transparent substrate is less than that of the antireflection film closer to the light-shielding layer. Thus, the combination of the references does not teach or suggest a liquid crystal display device comprising all the limitations recited in amended claim 9.

In summary, there is nothing in the cited references that teaches or suggests to one of ordinary skill in the art that he or she might or should provide the liquid crystal display device of amended claim 9. Furthermore, the liquid crystal display device of amended claim 9 produces new and unexpected results. That is, optical reflectivity on both surfaces of the color filter of the liquid crystal display device of amended claim 9 is much decreased. Accordingly, amended claim 9 is submitted to be unobvious and patentable over Yoshida in view of Takizawa under 35 U.S.C. 103(a). Reconsideration and withdrawal of the rejection of amended claim 9 are respectfully requested.

Applicant respectfully submits that claim 10 is now patentable for the following reasons:

Amended claim 10 recites in part "[a] color filter...the antireflection

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layer comprising a first antireflection film having a first index of refraction, and a second antireflection film formed on the first antireflection film and having a second index of refraction, the first index of refraction being less than the second index of refraction...each unit of said black matrix is completely vertically covered by at least one of said RGB resins.”

The subject matter of amended claim 10 highlighted above is contained in paragraph [0019] of the specification as originally filed. No new matter has been entered. Applicant acknowledges that Yoshida discloses a color filter comprising a transparent substrate (2), a black matrix (BM) divided into a plurality of units each of which has an antireflection layer (3 and 4) and a light shielding layer (5) successively formed on the transparent substrate, and a color resin layer (R, G, B), the antireflection layer comprising a first and a second antireflection films which are made from different materials. However, it is possible for two different materials to have exactly the same index of refraction. As indicated by Examiner, Takizawa merely teaches that each unit of the black matrix is completely vertically covered by at least one of the RGB resins. Yoshida in view of Takizawa fails to teach or suggest the limitations of “a second antireflection film formed on the first antireflection film...[and]...the first index of refraction being less than the second index of refraction,” as recited in amended claim 10, because the limitations mean that the index of refraction of the antireflection film closer to the transparent substrate is less than that of the antireflection film closer to the light-shielding layer. Thus, the combination of the references does not teach or suggest a color filter comprising all the limitations recited in amended claim 10.

In summary, there is nothing in the cited references that teaches or suggests to one of ordinary skill in the art that he or she might or should provide the color filter of amended claim 10. Furthermore, the color filter

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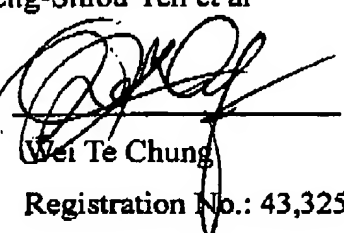
of amended claim 10 produces new and unexpected results. That is, optical reflectivity on both surfaces of the color filter of amended claim 10 is much decreased. Accordingly, amended claim 10 is submitted to be unobvious and patentable over Yoshida in view of Takizawa under 35 U.S.C. 103(a). Reconsideration and withdrawal of the rejection of amended claim 10 are respectfully requested.

In view of the foregoing, the present application as claimed in the pending claims is considered to be in a condition for allowance, and an action to such effect is earnestly solicited.

Respectfully submitted,

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